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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,219	03/25/2005	Yukihiro Tatsuno	123301	2151

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EXAMINER	
LEY, FRANCISCO M	
ART UNIT	**PAPER NUMBER**
3746	

MAIL DATE	DELIVERY MODE
09/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,219	TATSUNO ET AL.	
	Examiner	Art Unit	
	Francisco M. Ley	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 8* is/are rejected.

7)☒ Claim(s) *4-7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 March 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/25/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The disclosure is objected to because of the following informalities:

On page 17, Lines 1-2, "A servo control unit 57" should probably recite, "A servo control unit 64" as the servo control in Figure 7 is labeled 64 and no element is shown labeled 57.

Appropriate correction is required.

Claim Objections

4. Claims 4-7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 4-7 have not been further treated on the merits.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akira et al. (JP 2633095; Hereinafter, Akira) in view of Ito et al. (U.S. Patent 5,269,391; Hereinafter, Ito). Note: Citations to Akira are referring to the machine translation included by applicant in the Information Disclosure Statement dated 3/25/2005.

Regarding Claims 1 and 2, Akira discloses a control apparatus of a construction machine that includes a variable displacement hydraulic pump 1 driven by a prime mover 27 and a hydraulic actuator 4 or 21 driven with pressure oil discharged from the hydraulic pump 1 (Paragraph [0010]). A rotation speed detection means 53 for detecting an actual rotation speed of the prime mover 27 comprises a prime mover control means 80 for controlling a rotation speed of the prime mover in accordance with an extent to which the operating means 6 and 6a is operated (Paragraph [0011]). An input torque control means 100 for adjusts an input torque for the hydraulic pump 1 based on a deviation between the actual rotation speed detected by the rotation speed detection means and a control rotation speed set through an operation of the operating means 6 and 6a (Paragraph [0010]).

Akira does not disclose that the input torque control means decreases the input torque in response to a deviation between a control rotation speed and an actual rotation speed. However, Ito discloses a torque control apparatus for promptly reducing the output torque of an internal combustion engine in which the integral correction torque is restricted to a negative value range, and a restricted reference torque is subtracted from the reference driving torque (See Ito, Claim 1; Column 58, Lines 3-13). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Akira so that the torque control means decreases torque in relation to an actual and control rotation speed, as is disclosed by Ito. This would allow the target driving torque to coincide with the actual driving torque (See Ito, Abstract).

Regarding Claims 3/1 and 3/2, Akira discloses that the input torque control means 100 sets an adjustment amount of the input torque to zero if the control rotation speed is greater than the actual rotation speed and the deviation between them is below the predetermined value (Paragraph [0021]).

Regarding Claim 8, Akira discloses a method for calculating an input torque which is implemented by a hydraulic circuit 60 and includes at least a variable displacement hydraulic pump 1 driven by a prime mover 27 and a hydraulic actuator 4 or 21 driven with pressure oil discharged from the hydraulic pump 1. The method further includes calculating a standard torque in correspondence with a deviation between a control rotation speed and an actual rotation speed of the prime mover 27, and setting a correction torque to zero if the control rotation speed is greater than the

actual rotation speed and the deviation between them is smaller than or equal to a predetermined value (Paragraph [0021]). Akira does not disclose that the correction torque is set to a negative value if the deviation is larger than or equal to the predetermined value and that the input torque is calculated by adding the correction torque to the standard torque. However, Ito teaches that a predetermined negative value is added to a correction torque when a vehicle wheel slippage is detected as having a negative value (Claim 2; Column 58, Lines 22-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Akira so that a negative torque is added to the correction torque as is disclosed by Ito. This would provide for smooth acceleration (Ito Column 1, Lines 13-18), as Ito describes the method prevents slipping in vehicle wheels, and likewise it would be obvious to use this method in construction machinery in order to achieve better control over a hydraulic pump instead of vehicle wheels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco M. Ley whose telephone number is (571) 270-1299. The examiner can normally be reached on Monday-Friday, 8:30am-6:00pm, Alt Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached at (571) 272-4561. The fax phone

number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.

/FML/
September 13, 2007

ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
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